

Colbert 8.2^(COLSF)
U)

ABC LABORATORIES, INC.
EAST 4922 UNION AVENUE
SPOKANE, WA 99219
509-534-0161

RECEIVED
MAR 26 1990
SUPERFUND BRANCH

REPORT TO: Spokane County Dept. of Utilities
N. 811 Jefferson
Spokane, WA 99210

LAB NO: 33374-90
DATE: 3-14-90
SAMPLE DATE: 3-13-90

ATTN: Bruce Austin

P.O.#:

DESCRIPTION: Perform Volatile Organic Scan on submitted samples from the wells in the Colbert Landfill area. Analyses performed by methods outlined in proposal of December 8th, 1988.

DETECTION LIMITS: 1 part per billion

ND: Not Detected

This document contains ^{six}~~seven~~ pages.

Respectfully Submitted,
ABC LABORATORIES, INC.


W.E. Burkhardt
Manager

USEPA SF



1414342

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities
Lab NO. 33374-90

NAME

Travel
Blank

(b) (6)

WELL NO.

1073M-1 1073N-1 1573-C17 2273F-1 0273F-2

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,2-Trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33374-90

NAME

(b) (6)

WELL NO.	0273E-1 Original	0273E-1 Confirming	0273E-1 Resample	0273E-1 Confirming	1173B-1	1173B-1 Confirming
Chloroform	ND	ND	ND	ND	2	2
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	47	39	71	40	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	490	475	540	460	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene Dibromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

*Note: the confirmation was done with a column which depicts 1,1,1-Trichloroethane but does not have equal 1,1, Dichloroethylene sensitivity.

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities

Lab NO. 33374-90

NAME

(b) (6)

WELL NO.

1573B-5
Original

1573B-5
Confirming

1573B-5
Resample

1573B-5
Confirming

0273J-2

1573E-2

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	16	18	16	10	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene Dibromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,2-trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

ABC LABORATORIES, INC.

Spokane County Dept. of Utilities
Lab NO. 33374-90

NAME

WELL NO.

Ringo
Springs
1073P-1s

Ringo
Springs
1073P-1s
Confirming

(b) (6)

1573C-2

1573Q-1

1173N-1

0373L-1

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	12	10	ND	ND	ND	13
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene Dibromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

Spokane County Dept. of Utilities

Lab NO. 33374-90

NAME

(b) (6)

WELL NO.

0373L-1
Confirming

1473C-3

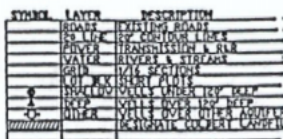
0273D-6

1073L-4

1573C-14

1573K-1

Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	11	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND
1-Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND
Trans 2-Hexene	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene Dibromide	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
O-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,2-trichloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND



FOR IDENTIFICATION OF WELLS
SEE WELL OWNER/HANDLER LEGEND

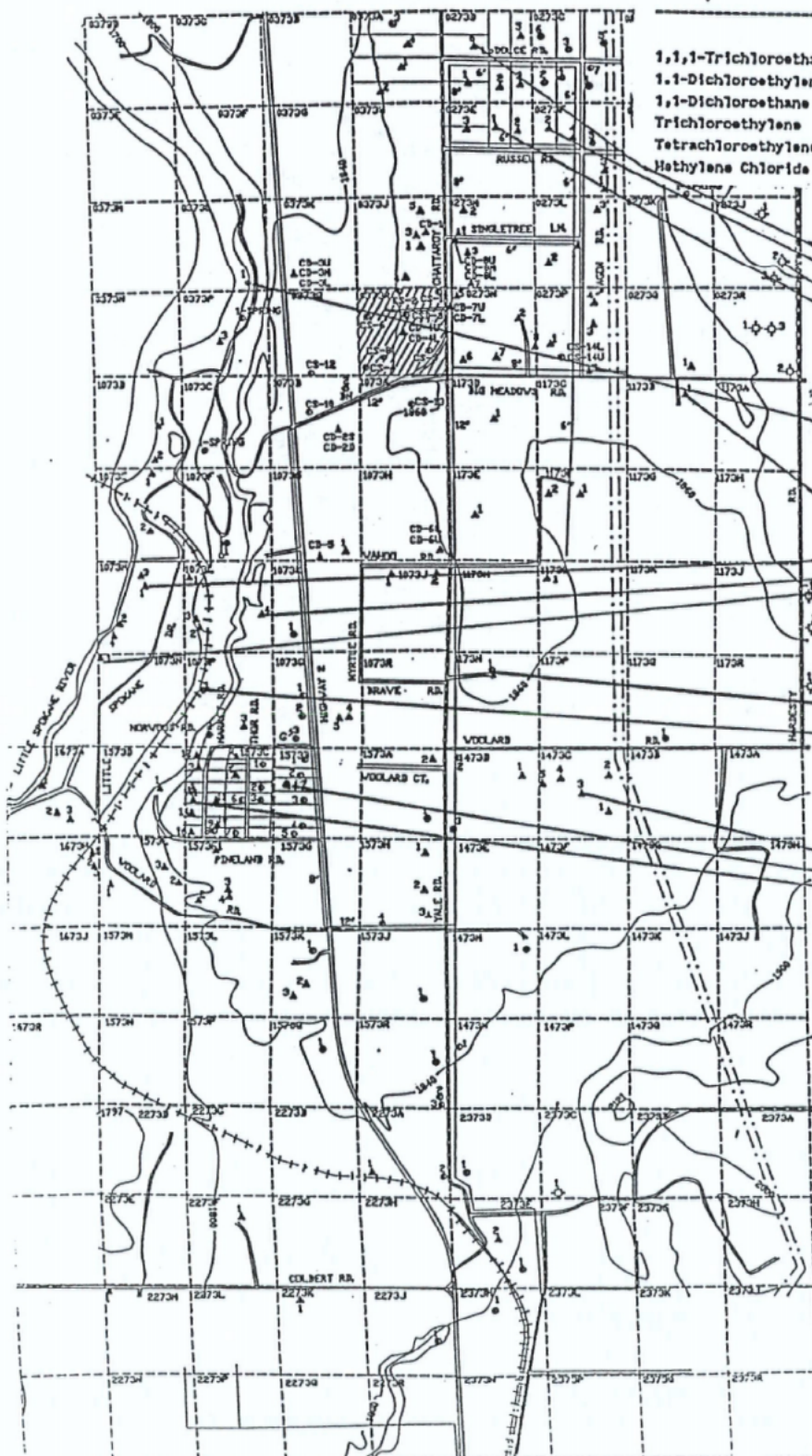
Health Protection Level^a

* Health Protection Levels are not to be exceeded, during operational life of remedial action in effluents from groundwater treatment systems. Permanent reduction of contaminant concentrations below these levels throughout the site will indicate completion of the remedial action.

Contaminant

Maximum Concentration
parts per billion (ug/l)

Basis



1,1,1-Trichloroethane (TCA)	200.0	HCL
1,1-Dichloroethylene (DCE)	7.0	HCL
1,1-Dichloroethane (DCA)	4050.0	HAG
Trichloroethylene (TCE)	5	HCL
Tetrachloroethylene (PCE or TETRA CL)	0	10 - 5 cancer risk
Methylene Chloride (MC)	2.5	10 - 5 cancer risk

DEEP

	MAR 13, 30 S 33274-30	WELL # 111-TGA	11-DCE	11-DCA	TCE	TETRACL	CHLOROFORM	METH CHLOR
(b) (6)	02720-8	NO	NO	NO	NO	NO	NO	NO
	02720-2	NO	NO	NO	NO	NO	NO	NO
(b) (6)	02723-2	NO	NO	NO	NO	NO	NO	NO
	02726-1	SAC	NO	NO	NO	NO	NO	NO

WELL #	111-TGA	11-DGE	11-DGA	TCE	TETRAC	CHLOROFORM	HEX	CHLOR
03731-1	13	ND	ND	ND	ND	ND	ND	ND

DATE	WELL	11-TGA	11-OGF	11-DCA	TGE	TETRACY	CHLORFORM	METH CHLOR
MAR 12, 90 # 33374-90	1172H-1	NO	NO	NO	NO	NO	2	NO
(b) (6)	1972H-1	NO	NO	NO	NO	NO	NO	NO
(b) (6)	1973H-1	NO	NO	NO	NO	NO	NO	NO
(b) (6)	1973H-4	NO	NO	NO	NO	NO	NO	NO
(b) (6)	1973H-1	NO	NO	NO	NO	NO	NO	NO

SHALLOW								
HAR 13, 90 # 33374-90	WELL #	111-TGA	11-DCE	11-DGA	TCE	TETRACL	CHLOROFORM	METH CHL
(b) (6)	1123H-1	ND	ND	ND	ND	ND	ND	ND
RINGO SPRINGS								
1073P-15	12	ND	ND	ND	ND	ND	ND	ND

DEEP	HAR 12, 90 # 33374-90	WELL # 111-TGA	11-DGE	11-DGA	TCE	TETRACL	CHLOROFORM	METH CHLOR
(b) (6)	14726-3	NO	NO	NO	NO	NO	NO	NO
	15736-17	NO	NO	NO	NO	NO	NO	NO
	15736-14	NO	NO	NO	NO	NO	NO	NO



SYMBOL	LAYER	DESCRIPTION
	ROAD	ROADWAY
	TO 1/4"	TO 1/4" ROAD
	POWER	TRANSMISSION & R.R.
	WATER	RIVERS & STREAMS
	SEAL	SEALED SECTION
	COI. PK.	COASTAL PLAINS
	SHALLOW	SHALLOW UNDERLY DEEP
	DEEP	DEEP UNDERLY DEEP
	UNDER	UNDER UNDERLY DEEP
		DESIGNATE COASTAL CANYON

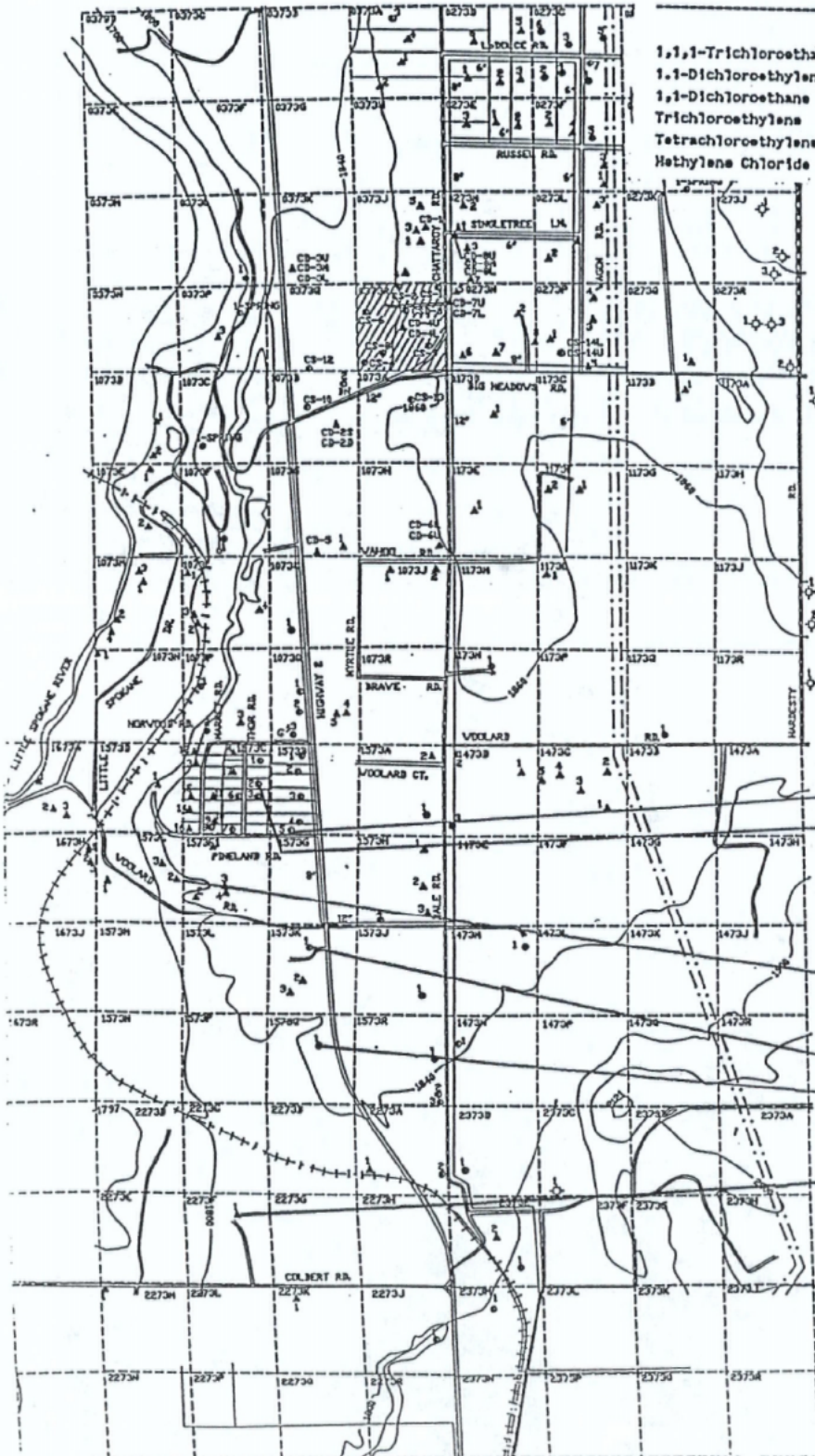
NOTE:

FOR IDENTIFICATION OF WELLS
SEE WELL OWNER/HANDLER LEGEND

Health Protection Levels^a

* Health Protection Levels are not to be exceeded, during operational life of remedial action in effluents from groundwater treatment systems. Permanent reduction of contaminant concentrations below these levels throughout the site will indicate completion of the remedial action.

Contaminant	Maximum Concentration parts per billion (ug/l)	Basis
1,1,1-Trichloroethane (TCA)	200.0	HCL
1,1-Dichloroethylene (DCE)	7.0	HCL
1,1-Dichloroethane (DCA)	4050.0	HAG
Trichloroethylene (TCE)	5.0	HCL
Tetrachloroethylene (PCE or TETRA CL)	0.7	10 - 8 cancer risk
Methylene Chloride (MC)	2.5	10 - 8 cancer risk



(b) [REDACTED] MAR 13, 90 # 33376-90 WELL # 111-DCA 111-DCE 111-DCA TCE TETRACHLOROETHYLENE METHYLCHLORIDE
19228-3 HQ HQ HQ HQ HQ HQ HQ HQ

(b)(6) 1573C-2 HQ HQ HQ HQ HQ HQ HQ HQ

DEEP
MAR 13, 90 # 33374-89 WELL # 111-TGA 11-DCE 11-DCA TCE TETRACL CHLOROFORM METH CHLOR
(b) (6) 1573E-2 NO NO NO NO NO NO NO

[illegible]

DEEP
MAR 13, 92 # 33374-90 WELL # 111-TGA 11-DCW 11-DCA TCE TETRACL CHLOROFORM METH CHLOR
(b) 2273F-1 NO NO NO NO NO NO NO